

Notes on two Little Known Species of Microlepidoptera

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ABSTRACT

Two little known species of Microlepidoptera; *Deltophora korbi* (Caradja) belonging to Gelechiidae, which known from USSR and *Aeolanthos semiostrina* Meyrick belonging to Xyloryctidae, which known from China, were redescribed and illustrated the genitalic characters of both sexes. And some biology of the latter was first introduced.

1. *Deltophora korbi* (Caradja); Family Gelechiidae 북방산뿔나방(뿔나방과)

Teleia korbi Caradja, 1920, Dt. ent. Z. Iris, 34:105.

Aristotelia maculata sensu Meyrick (nec Staudinger); 1925, Lep. Het. Gelechiidae, Gen. Ins., 184:47.

Aristotelia korbi; Gaede, 1937, Gelechiidae, Lep. Cat., 79:65.

Deltophora korbi; Sattler, 1979, Bull. Brit. Mus. (Nat. Hist.), Ent. ser., 38(6):291.

— Park, 1983, Insecta Koreana, ser., 3:84.

Male and female, wing expense 13-15mm. Since Caradja described this species with one male specimen which was collected at Khabarovsk of U.S.S.R by Korb (1907), without date of collection, no additional specimen has been reported to date. Here the female is reported and illustrated for the first time. This species is similar to *Deltophora maculata* (Staudinger) superficially which occurs in U.S.S.R. and W. Asia. However, according to Sattler (1979), it can be separated by the broader wing markings; the big, rounded discal spot does not reach the dorsal margin; the smaller spot at the end of the cell is isolated and not extended to the tornus; the ochreous head contrasts with the brown thorax and greish brown forewings in comparison with those *maculata* Staudinger. It is also separated by the male and female genitalia.

Male genitalia: (Pl. II figs. 4-5). Uncus hook simple and very long as tegumen. Valva broad, margins almost parallel; costal margin almost straight with obtuse angle near base; outer margin widely concave between apex and rounded projection at ventrodiscal angle of valva. Aedeagus

K.T. PARK, Y.H. SHIN: Notes on two Little Known Species of Microlepidoptera

inflated, sclerotized at basal 2/3, but dorsal portion of apical third membranous, ventral portion sclerotized.

Female genitalia: (Pl. II, figs. 6-7). Posterior portion of 7th abdominal segment with pair of sclerotized pleural pits. Papilla analis somewhat elongate; apophysis posterior about twice as long as apophysis anterior. Posterior margin of 8th segment with irregular row of long setae. Eighth tergite and sternite medially membranous; ostium bursa on posterior half of 8th sternite, with long sclerotized antrum. Ductus bursae narrow posteriorly, gradually widened anteriorly, smoothly connected to corpus bursae. Ductus seminalis originates from the posterior part of ductus bursae at the colliculum. Corpus bursae elongated, clearly definable with large single signum. Signum strongly developed, composed of blade-formed triangular, with serrate edge; apical part rounded, basal arm not developed.

Material examined: 1 ♂, 1 ♀, Mt. Myungji, Gyunggi Prov., 27. VI. 1983 (K.T. Park); 1 ♂, Mt. Chiag, Gangweon Prov., 23. VI. 1977 (Y.Y. Ha)

Distribution: Korea, U.S.S.R (Khabarovsk).

***Aeolanthes semiostrina* Meyrick; Family Xyloryctidae**

Aeolanthes semiostrina Meyrick, 1935, in Caradja & Meyrick, Mat. Microl. Fauna Chin. Prov. Kiangsu, Cheking & Hunan: 82.

— Clarke, 1955, Cat. Type spe. Microl. B.M. (Nat. Hist.) Meyrick, 2:409.

— Park, 1983, Insecta Koreana, ser. 3:81.

Male and female, wing expense, 19-21mm. Types, a female and 3 specimens without abdomen, are preserved in Meyrick collection, B.M. (Nat. Hist.), London. Since the species was described from Tianshan, China, no other report has been appeared except writer (1983) listed it in the Microlepidoptera of Korea. Male and female genitalia are also first illustrated here. The colour of forewing is divided into two parts by the outwardly oblique median line which extended from 1/4 of costa to near tornus; anterior half of the line purplish, but posterior half reddish yellow; posterior half of female is paler than it of male; a conspicuous fuscous line presented from apex toward middle of dorsum. Hindwing greyish.

Male genitalia: (Pl. IV, figs. 1-3). Uncus short, slender with pointed tip, smoothly connected to tegumen. Gnathos simple, inconspicuous shape. Valva slender, strongly bent medially with dilated base outwardly; caudal portion with pointed apex and dentated margin dorsally. Saccus large, rounded. Aedeagus very large, longer than the length of genitalia, strongly bent medially; cornuti presented a row which consist of many short setae.

Female genitalia: (Pl. IV, figs. 4-5). Ostium bursae cup-like, well sclerotized with wide and inwardly concaved entrance. Ductus bursae very long with a sclerotized and widened part at posterior. Corpus bursae ovate, wrinkled with a large appendix sac; a pair of signum strongly sclerotized, crescent-shaped.

Remarks: Bionomy of the species has not been well known so far, but *Mauls pumila* was first known as its food plant by writer (1983). It was observed that larvae roll or spine the leaves of apple tree and feed on them. Pupation takes place between leaves. Moths appear mostly in June and July.

Material examined: 1 ♂, Mt. Gyeryong, Chungnam Prov., 20. VI. 1980 (K.T. Park), slide no. 1283; 1 ♀, Suweon, Gyunggi Prov., 8 VII. 1980 (C.G. Yoo), slide no. 1285; 2 , Gwangnung,

Gyunggi Prov., 10. VI. 1972 (S.M. Lee), slide no. 1284.

Distribution: Korea, China.

REFERENCES

1. Clarke, J.F.G., 1955, Catalogue of the Type Specimens of Microlepidoptera in the Brit. Mus. (Nat. Hist.) described by E. Meyrick, London, 5:409.
2. Gaede, M., 1937, Gelechiidae, In Bryk, F., Lepidopterum Catalogues, 79:65.
3. Meyrick, E., 1925, Lepidoptera Heterocera, Gelechiidae, Genera Insectorum, 184:47.
4. Park, K.T., 1983, Microlepidoptera of Korea, Insecta Koreana, ser. 3:12, 78, 81, 84.
5. Sattler, K., 1979, A taxonomic revision of the genus *Deltophora* Janse, 1950, (Lep. Gelechiidae), Bull. Brit. Mus. (Nat. Hist.), Ent. ser., 38(6):291.

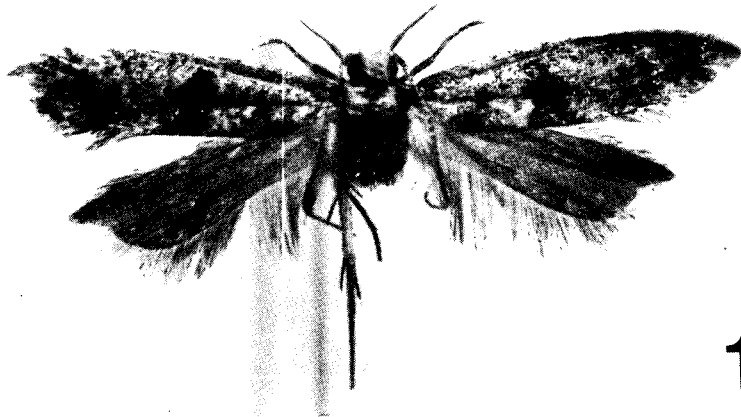
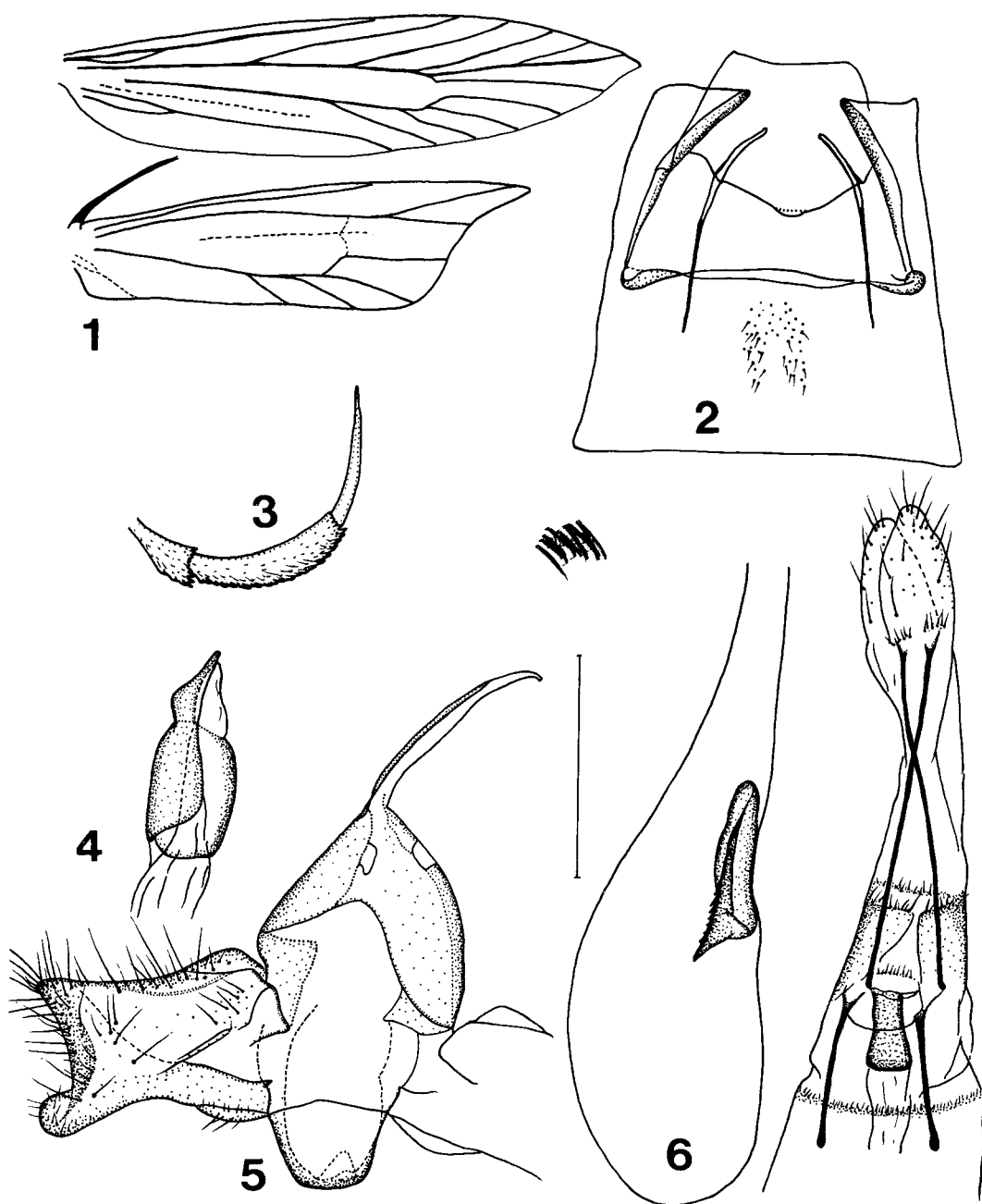
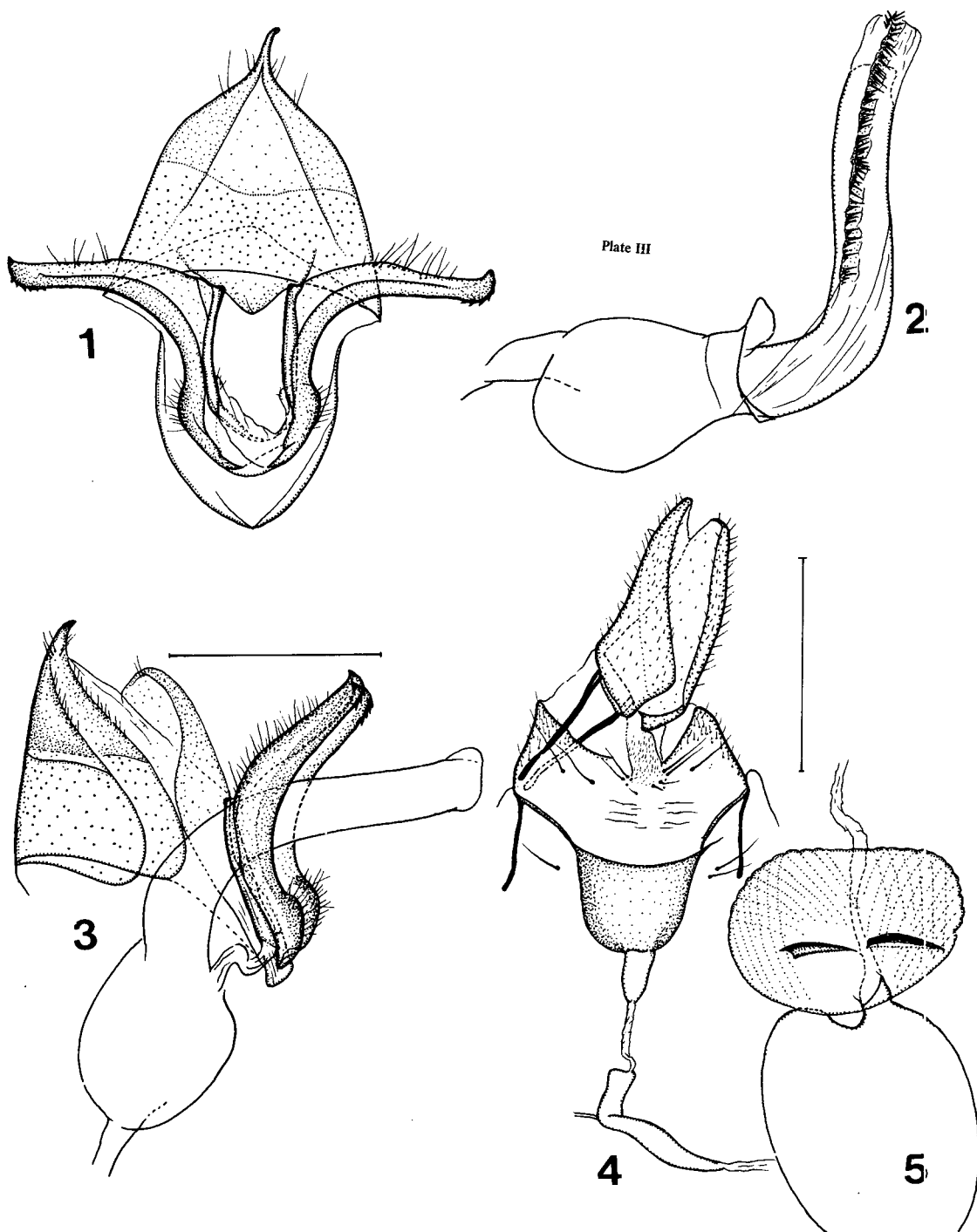


Plate I. Explanation of Figures

Fig. 1. *Deltophora korbi* (Caradja), **2.** *Aeolanthes semiostrina* Meyrick.



Figs. 1. *Deltophora korbi* (Caradja); Venation of wings, 2. ditto; Abdominal sternite II and tergite I & II, 3. ditto; Labial palpus, 4. ditto; Aedeagus of male genitalia, 5. ditto; Male genitalia, 6-7. ditto; Female genitalia (Scale: 0.5 mm).



Figs. 1. *Aeolanthus semiostrina* Meyrick; Ventral aspect of male genitalia, 2. ditto, Aedeagus, 3. ditto; lateral aspect of male genitalia, 4-5. ditto; Female genitalia (Scale = 0.5 mm).